

BUREAU OF LAND MANAGEMENT

<http://www.blm.gov/utah/price/>

OCT 22 2007



Karen Palmer
Diamond K Gypsum, Inc.
1720 South Red Hills Drive
Richfield, Utah 84701

Finding of No Significant Impact

43 CFR 3829.411 (2)

Before operations begin, you must obtain all State and Local permits, and file a financial guarantee of \$20,700.00 to cover reclamation costs with the Utah Division of Oil, Gas and Mining. You must reclaim all lands disturbed by your operations and take all measures needed to prevent undue and unnecessary degradation of the environment. This requires that you meet the performance standards specified by regulations at 43 CFR Subpart 3809.420, and include the operating practices included in the Plan.

RECEIVED
OCT 31 2007
DIV. OF OIL, GAS & MINING

If you do not agree and are adversely affected by this decision, you may request that the Utah BLM State Director review this decision. If you request a State Director Review, the request must be received in the Utah BLM State Office at P.O. Box 45155, Salt Lake City, UT 84145, no later than 30 calendar days after you receive or have been notified of this decision. The request for State Director Review must be filed in accordance with the provisions in 43 CFR 3809.805. This decision will remain in effect while the State Director Review is pending, unless the State Director grants a Stay. If you request a Stay, you have the burden of proof to demonstrate that a Stay should be granted.

If the State Director does not make a decision on your request for review of this decision within 21 days of receipt of the request, you should consider the request declined and you may appeal this decision to the Interior Board of Land Appeals (IBLA). You may contact the Utah BLM State Office to determine when BLM received the request for State Director Review. You have 30 days from the end of the 21-day period in which to file your Notice of Appeal with this office at, 125 South 600 West, Price, Utah 84501 which we will forward to IBLA.

If you wish to bypass a State Director Review, this decision may be appealed directly to the IBLA in accordance with the regulations at 43 CFR 3809.801(a) (1). Your Notice of Appeal must be filed in this office within 30 days from receipt of this decision. As the appellant, you have the burden of showing that the decision appealed from is in error. Enclosed is BLM's Form 1842-1 which contains further information on taking appeals to the IBLA.

Please contact Don Stephens (435-636-3608) if you have any questions.

Sincerely,



Michael Stiewig
Associate Field Manager

Enclosures

Finding of No Significant Impact/Decision Record
Environmental Assessment
BLM Form 1842-1

cc: ✓ Paul Baker
Department of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

**FINDING OF NO SIGNIFICANT IMPACT
AND
DECISION RECORD**

Chalk Hills Gypsum Quarry

NEPA Log: UT-070-06-053

Case File: UTU-079585

Finding of No Significant Impact:

Based on the analysis of potential environmental impacts contained in the (*referenced or attached*) environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the action will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

Decision:

It is my decision to authorize the Chalk Hills Gypsum Quarry as described in Alternative C, Proposed Action with Mitigation Measures, of environmental assessment number UT-070-06-053.

The Proposed Action is the Plan of Operations for the Chalk Hills Gypsum Quarry submitted to the BLM Price Field Office by Diamond K Gypsum Company pursuant to 43 CFR 3809.401 (rev. October 1, 2005). The proposed operation would consist of a 4.70-acre quarry, with a 400-ft-long by 27.25-ft-wide access road from Emery County Road 405. The total surface disturbance will be approximately 4.95 acres. Based on estimated average recoverable ore thickness of 15 ft and projected annual production of 60,000 tons, the 4.70-acre quarry would have a life of approximately four years. Alternative C, the selected alternative, incorporates the Plan of Operations presented in the Proposed Action and applies mitigation measures.

Approval of a mining plan of operations submitted to work claims staked under the General Mining Law of 1872 is not a discretionary action. BLM has the obligation to analyze the environmental impacts to ensure that the operation does not cause undue and unnecessary degradation to the environment. BLM has the option to either approve or deny a complete plan of operations. I have determined that approving the mining plan of operations as amended by the EA (Alternative C) would prevent unnecessary and undue degradation of the environment. Approval of this plan will not now or in the future serve as a determination of the ownership or the validity of any mining claim to which it may relate.

This decision is contingent on meeting all requirements listed below. These measures will be attached as stipulations to the Plan of Operations to address issues related to development of the gypsum quarry and to prevent undue and unnecessary environmental degradation.

- The mine access between EM405 and the mine site and its associated drainage shall be regularly maintained to avoid erosion or the creation of a muddy, braided road. The road would not be flat-bladed, but crowned and ditched to maintain a dry running surface.
- To reduce potential sedimentation, all overburden will remain on site as stockpiles and would be used to regrade the site and used as a growing medium for revegetation. No waste rock or soil material shall be broadcast outside the quarry area.
- All topsoil removed prior to any surface disturbing activity shall be stockpiled along one edge of the operation until reclamation procedures are initiated.
- Boundaries of the site will be clearly marked and maintained for the duration of the mining operation. If PVC pipe is used to mark the boundary of the permit area, the pipe shall be capped.
- In the event cultural resources are found during quarrying the gypsum, work shall cease immediately at the site and the Price Field Office Manager or their representative shall be notified immediately. The operator will then receive guidance on how to proceed.
- In the event white-tailed prairie dogs move into the gypsum mine site, work shall cease immediately at the site and the Price Field Office Manager or their representative shall be notified. Diamond K will then receive guidance on how to proceed with operations.
- In the event that the San Rafael Cactus is discovered within the quarry, work shall cease immediately and the Price Field Office Manager or their representative shall be notified immediately. The operator will then receive guidance on how to proceed.
- Stockpiles would not exceed 15 feet in height.
- Trash shall be collected and contained and shall not be allowed to accumulate. All trash would be disposed of in an approved landfill facility.
- No oil or petroleum products shall be drained onto the ground surface. Any oil, lubricant, toxic material or contaminated soil, shall be removed from the site and disposed of at an approved facility.
- During the operation of the quarry, signs warning travelers on Emery County Road 405 of trucks turning onto the road from the mine access road should be placed as guided by Emery County.

- The quarry would not operate during the extended Easter weekend (Thursday through Sunday), and during Memorial Day and Labor Day weekends (Saturday through Monday) each year.
- The proposed quarry is located within a grazing allotment managed by the BLM. Because there are other pastures within this grazing allotment where grazing is rotated through the year, livestock may be present during the fall, winter or spring. The travel route is open range. Livestock are attracted to the shelter that quarry operations may provide. Be aware that livestock may be present in the area.
- No camping in connection with the operation would be allowed.
- At any given time the amount of disturbed area (includes roads on mining claim, processing pad and active quarry shall not exceed more than 4.95 acres. If acreage exceeds 4.95 acres this Plan of Operations must be amended and approved before operations continue.
- If the site is inactive for three consecutive years and no use is scheduled, reclamation procedures shall be initiated. Abandoned portions of the quarry shall be reclaimed within one year, or to maintain an area of 4.95 acres of disturbance or less.
- Reclamation at the site shall include the placement of mulch as directed by the Authorized Officer. The type of mulch shall meet the following requirements.
 - a. Wood cellulose fiber shall be natural or cooked, shall disperse readily in water, and shall be nontoxic. The homogenous slurry or mixture shall be capable of application with power spray equipment. A colored dye that is noninjurious to plant growth may be used when specified. Wood cellulose fiber shall be packaged in new, labeled containers. A minimum application of 1,500 pounds per acre shall be applied. A suitable tackifier shall be applied with the mulch at a rate of 60 to 80 pounds per acre.
 - b. An alternative method of mulching on small areas would be the application of straw or hay mulch at a rate of 2,000 pounds per acre. Hay or straw shall be certified weed free. Following the application of straw or hay, crimping shall occur to retain retention.
- Fencing of any reclaimed area to keep livestock out of the site shall be done at the discretion of the Authorized Officer.
- Reclamation shall be considered complete when so determined by the Authorized Officer. Reclamation shall include re-grading and re-contouring all surface

disturbance related to the mining activity including the mine access road. The area would be re-contoured to blend with the surrounding landscape and reseeded.

Any significant departures from the Plan of Operations shall require a submission of a plan amendment to the Price Field Office. The amendment must be approved prior to the on-the-ground change. The authorized officer shall determine what constitutes a significant departure from the Plan of Operations.

Rationale for the Decision:

Alternative C, the Proposed Action with Mitigation Measures, is in conformance with the San Rafael Resource Management Plan (SRRMP), approved on May 24, 1991. An objective of the SRRMP, as stated on page 19, is "to make public lands available for claim location and mineral development, so long as the scenic values, relict vegetation, and cultural or historic values identified in the RMP goals are protected . . ."

Based on the environmental analysis in the EA, I have determined that Alternative C, with its mitigation measures to be attached to the Plan of Operations as stipulations, will not result in any unnecessary or undue environmental degradation of public lands, and is consistent with federal, state and local laws, regulations and plans. Review of this action has been in accordance with the Endangered Species Act, National Historic Preservation Act, and other laws and policies that govern the proposed project. Alternative C would not impact any threatened or endangered species; significant scientific, cultural, historical or paleontological resources; or relict vegetation; and is consistent with the visual resources management classification of the area.

Careful consideration has been given to the comments received upon the EA's availability for public review and coordination with Native American Tribes. Price Field Office responded to a comment letter received by the Hopi Tribe by correcting a discrepancy between the initial acreage proposed for this project and what had been surveyed for cultural resources. Responses were made to multiple comments from the Southern Utah Wilderness Alliance by modifying the EA to provide additional analysis and by replying directly to comments presented in section 5.4, Summary of Public Participation, of the EA.

Appeals:

If there is disagreement and are adversely affected by this decision, in accordance with 43 CFR 3809.800, you may request that the Utah BLM State Director review this decision. If you request a State Director review, the request must be received in the Utah BLM State Office, P.O. Box 45155, Salt Lake City, Utah 84145-0155, no later than 30 calendar days after you receive this decision. A copy of the request must also be sent to this office. The request must be in accordance with the provisions provided in 43 CFR 3809.805. If a State Director review is requested, this decision will remain in effect while the State Director review is pending, unless a stay is granted by the State Director. Standards for obtaining a stay are given below. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

If the State Director does not make a decision on your request for review of this decision within 21 days of BLM's receipt of the request, you should consider the request declined and you may appeal this decision to the Interior Board of Land Appeals (IBLA). You may contact the Utah BLM State Office to determine when BLM received the request for State Director review. You have 30 days from the end of the 21 day period in which to file your notice of appeal with the IBLA (see procedures below).

If you wish to bypass a State Director review, this decision may be appealed directly to the IBLA in accordance with the regulations contained in 43 CFR, Part 4 and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office P.O. Box 7004, Price, Utah 84501 within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

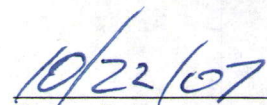
If you wish to file a petition pursuant to regulations 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the IBLA, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of this notice of appeal and petition for a stay must also be submitted to each party named in the decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellants success on the merits,
3. The likelihood of immediate and irreparable harm if the stay is not granted,
and
4. Whether the public interest favors granting the stay.


Authorized Officer (signature)


Date of signature

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE INTERIOR BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS

1. This decision is adverse to you,
AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

- | | |
|---|--|
| 1. NOTICE OF APPEAL | A person who wishes to appeal to the Interior Board of Land Appeals must file in the office of the officer who made the decision (not the Interior Board of Land Appeals) a notice that he wishes to appeal. A person served with the decision being appealed must transmit the <i>Notice of Appeal</i> in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. If a decision is published in the FEDERAL REGISTER, a person not served with the decision must transmit a <i>Notice of Appeal</i> in time for it to be filed within 30 days after the date of publication (43 CFR 4.411 and 4.413). |
| 2. WHERE TO FILE

NOTICE OF APPEAL.....

WITH COPY TO SOLICITOR... | Bureau Of Land Management
Price Field Office
125 South 600 West
Price, Utah 84501

Regional Solicitor
Room 6201
125 South State Street
Salt Lake City, Utah 84111 |
| 3. STATEMENT OF REASONS

WITH COPY TO SOLICITOR..... | Within 30 days after filing the <i>Notice of Appeal</i> , file a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. If you fully stated your reasons for appealing when filing the <i>Notice of Appeal</i> , no additional statement is necessary (43 CFR 4.412 and 4.413).

Regional Solicitor
Room 6201
125 South State Street
Salt Lake City, Utah 84111 |
| 4. ADVERSE PARTIES | Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of: (a) the <i>Notice of Appeal</i> , (b) the Statement of Reasons, and (c) any other documents filed (43 CFR 4.413). |
| 5. PROOF OF SERVICE | Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (43 CFR 4.401(c)). |
| 6. REQUEST FOR STAY | Except where program-specific regulations place this decision in full force and effect or provide for an automatic stay, the decision becomes effective upon the expiration of the time allowed for filing an appeal unless a petition for a stay is timely filed together with a <i>Notice of Appeal</i> (43 CFR 4.21). If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Interior Board of Land Appeals, the petition for a stay must accompany your <i>Notice of Appeal</i> (43 CFR 4.21 or 43 CFR 2801.10 or 43 CFR 2881.10). A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the <i>Notice of Appeal</i> and Petition for a Stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay. Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) the relative harm to the parties if the stay is granted or denied, (2) the likelihood of the appellant's success on the merits, (3) the likelihood of immediate and irreparable harm if the stay is not granted, and (4) whether the public interest favors granting the stay. |

Unless these procedures are followed, your appeal will be subject to dismissal (43 CFR 4.402). Be certain that **all** communications are identified by serial number of the case being appealed.

NOTE: A document is not filed until it is actually received in the proper office (43 CFR 4.401(a)). See 43 CFR Part 4, Subpart B for general rules relating to procedures and practice involving appeals.

43 CFR SUBPART 1821--GENERAL INFORMATION

Sec. 1821.10 Where are BLM offices located? (a) In addition to the Headquarters Office in Washington, D.C. and seven national level support and service centers, BLM operates 12 State Offices each having several subsidiary offices called Field Offices. The addresses of the State Offices can be found in the most recent edition of 43 CFR 1821.10. The State Office geographical areas of jurisdiction are as follows:

STATE OFFICES AND AREAS OF JURISDICTION:

Alaska State Office ----- Alaska
Arizona State Office ----- Arizona
California State Office ----- California
Colorado State Office ----- Colorado
Eastern States Office ----- Arkansas, Iowa, Louisiana, Minnesota, Missouri
and, all States east of the Mississippi River
Idaho State Office ----- Idaho
Montana State Office ----- Montana, North Dakota and South Dakota
Nevada State Office ----- Nevada
New Mexico State Office ---- New Mexico, Kansas, Oklahoma and Texas
Oregon State Office ----- Oregon and Washington
Utah State Office ----- Utah
Wyoming State Office ----- Wyoming and Nebraska

(b) A list of the names, addresses, and geographical areas of jurisdiction of all Field Offices of the Bureau of Land Management can be obtained at the above addresses or any office of the Bureau of Land Management, including the Washington Office, Bureau of Land Management, 1849 C Street, NW, Washington, DC 20240.

(Form 1842-1, September 2006)



United States Department of the Interior
Bureau of Land Management

October 2007



Environmental Assessment UT-070-06-053

Diamond K Gypsum Chalk Hills Quarry

Location: S½S½SW¼ Section 23, T. 19 S., R. 10 E.

Applicant/Address: Diamond K Gypsum Inc.

*1720 South Red Hills Drive
Richfield, UT 84701*

U.S. Department of the Interior
Bureau of Land Management
Price Field Office
125 South 600 West, Price, Utah 84501
Phone: (435) 636-3600

1.0 INTRODUCTION AND NEED FOR PROPOSED ACTION

1.1 Introduction

This Environmental Assessment (EA) has been prepared to analyze Diamond K Gypsum Company's (Diamond K) proposal to produce gypsum from one of its unpatented mining claims located on public land in central Emery County, in accordance with Diamond K's Plan of Operations, as amended (Plan), filed with the Bureau of Land Management (BLM) Price Field Office (PFO) in compliance with 43 CFR 3809.401, and a Notice of Intention to Commence Small Mining Operations (NOI), as amended, filed with the State of Utah Division of Oil, Gas and Mining (DOGM). The EA is a site-specific analysis of potential impacts that could result with the implementation of a Proposed Action or alternatives to the Proposed Action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and is found at 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI). A Decision Record (DR), which includes a FONSI statement, is a document that briefly presents the reasons why implementations of the proposed action would not result in "significant" environmental impacts (effects) beyond those already addressed in the San Rafael Resource Management Plan (SRRMP, 1991). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the alternative selected.

1.2 Background

Diamond K has properly located and recorded 19 unpatented mining claims in sections 23, 26, 27, and 35, Township 19 South, Range 10 East (T19S, R10E), Salt Lake Principal Meridian, straddling and west of Emery County Road 405 (EM405), totaling approximately 750 acres. Diamond K Gypsum proposes to open a small (less than 5 acre) gypsum quarry on one claim, Wedge 23-19 (UMC384084), west of EM405 at the north end of the claim area. The staking of several claims does not necessarily imply that a company would develop all claims. Diamond K proposes to only operate on 4.95 acres of one claim. Development of further operations would be based on the uniform quality of the gypsum and future markets. Any new operations in the area would require the submittal of a new Plan of Operations.

The Plan of Operations envisions a quarry area of 4.70 acres, approximately 930 ft in overall east-west length and 220 ft in north-south width along the north boundary of the southeastern part of the #23-19 claim. The 400-ft access road west from Emery County Road 405 adds 0.25 acres for a total disturbed area of 4.95 acres. First-year disturbance under the Plan of Operations is estimated at three acres or less, with total disturbance under the Plan of Operations, based on initial production of approximately 60,000 tons per year, of no more than 4.95 acres (this includes the access road). At the projected

production rate the quarry would not expand beyond this area for the first four years of operation. A new Plan of Operations would be submitted if expansion of the quarry is required.

1.3 Need for the Proposed Action

The need for the proposed project is to allow Diamond K to develop its federal unpatented placer mining claim Wedge 23-19, under the General Mining Law of 1872. Operations are to be conducted in accordance with the Plan of Operations submitted pursuant to 43 CFR 3809.401. The General Mining Law of 1872 recognizes the statutory right of mining claimants to develop locatable mineral resources to produce high-quality gypsum products for agricultural, landscaping, and food production markets so long as undue and unnecessary environmental degradation is not incurred.

1.4 Purpose of the Proposed Action

Diamond K Gypsum staked its claims under the General Mining Law of 1872, and filed a complete mining Plan of Operations in accordance with 43 CFR 3809.401 to quarry gypsum to sell commercially. Under the San Rafael Resource Management Plan the lands where the claims are staked are open for location under the 1872 Mining Law. Development of mineral resources is consistent with the mission of the BLM. Location and development of mining claims for locatable materials, including gypsum, are supported by the Placer Claim Act of 1866, the General Mining Law of 1872, and numerous related statutes and the regulations promulgated thereunder. The Federal Land Policy and Management Act of 1976 (FLPMA) mandates that the BLM manage public lands on the basis of multiple use [43 U.S.C. § 1701(a)(7)]. Minerals are identified as one of the principal or major uses of public lands in Section 103 of FLPMA [43 U.S.C. § 1702(c)].

1.5 Conformance with BLM Land Use Plans

The project area is within the San Rafael Planning Unit and is managed by the Price Field Office, Bureau of Land Management. Currently, the San Rafael Resource Management Plan (SRRMP), approved on May 24, 1991, is in effect for the Chalk Hills area. The proposed action is in conformance with all federal, state, and local land use plans, including the SRRMP. An objective of the SRRMP, as stated on page 19, is "to make public lands available for claim location and mineral development, so long as the scenic values, relict vegetation, and cultural or historic values identified in the RMP goals are protected . . ."

1.6 Relationship to Statutes, Regulations, or other Plans

Various federal, state and local statutes, permits and easements would be required for actions associated with the proposed development. Certain standards regarding watershed

conditions, ecological processes, water quality, and habitat are to be achieved to ensure that Fundamentals of Rangeland Health (43 CFR4180) are carried out on BLM lands. The overall rangeland health within the Buckhorn livestock grazing allotment would not be affected by the proposed action. The project would be 4.95 acres in size and the grazing allotment is 47,910 acres (combination of federal, 40,970 acres; state 5,520 acres; and private land, 700 acres). Stipulations would be attached to the Plan of Operations as part of the approval of the operation. These stipulations would incorporate environmental protective measures and other mitigation measures to prevent undue and unnecessary degradation of the environment. There are no Native American Trust Lands in the vicinity of the proposed action. No Native American Religious concerns have been identified through consultation with Native American Tribes.

The proposed development would be in accordance with the *General Mining Law of 1872*, 43 C.F.R. 3715 (*Use and Occupancy Under the Mining Laws*) and 43 C.F.R. 3809 (*Surface Management Regulations*). Under these authorities, Diamond K Gypsum has the right to stake a claim and submit a mining Plan of Operations to mine gypsum. The operation would be required to conform with Utah Administrative Code *Rule R647-3-Small Mining Operations* and a mining permit would be obtained from the Utah Division of Oil, Gas and Mining, as part of the approval of this mining proposal. This project would be consistent with various federal, state, and local laws and regulations related to the commercial development of natural resources, including appropriate acquisition of required permits and easements.

The land on which Diamond K proposes to operate is zoned by Emery County as MG&R-1, Mining, Grazing & Recreational use. The classification specifically encourages mining (Article IX, §9-4-1, Zoning Ordinance for Emery County, Utah).

A separate right-of-way permit would have to be obtained from Emery County to use County Road EM405 to access the site. Access between EM405 and the quarry would be permitted by the BLM and is part of the mining plan of operations. This access would be included in the financial guarantee that would be required before Diamond K is authorized to begin operations.

1.7 Identification of Issues

Public notice of Diamond K's proposal was posted on the Utah BLM Environmental Notification Bulletin Board on May 23, 2006.

A survey for threatened, endangered and sensitive plant and animal species was conducted within the proposed quarry area. No threatened, endangered or sensitive species were found. Therefore a determination was made that the proposed quarry would have no effect on threatened, endangered and sensitive plant and animal species. Because of this no effect determination, there is no requirement for the BLM to obtain concurrence from U.S. Fish and Wildlife Service. Therefore, no letters were sent to the U.S. Fish and Wildlife Service.

Consultation with Native American Tribes was initiated on January 29, 2007. The only response received was from the Hopi Tribe who requested a copy of the cultural resource survey report which was mailed to them on February 23, 2007. A letter dated March 2, 2007 was received by PFO on March 12, 2007. This letter pointed out a discrepancy between the initial acreage proposed for this project and what had been surveyed. This was remedied by changing the proposed action to the five acres surveyed under the cultural resource survey report. A letter dated April 25, 2007 explaining this change was mailed to the Hopi Tribe.

The area of potential effect for this project is 4.95 acres in the north central portion of the Wedge #23-29 claim, located in the NWSWSW and NESESW, Section 23, Township 19 South, Range 10 East. A Class III cultural resource inventory was completed for the proposed Diamond K Gypsum quarry on September 7, 2006. No prehistoric or historic sites were identified during the surveys. A determination of "no historic properties affected" was recommended. This undertaking falls under the purview of the Protocol negotiated between BLM and the Utah State Historic Preservation Office, a document designed to assist BLM in meeting its responsibilities under the National Historic Preservation Act, various implementing regulations, and the National Cultural Programmatic Agreement. Further, the view taken here is that the undertaking does not exceed any of the review thresholds listed in Part VII (A) of the Protocol, and that it may be viewed as a No Historic Properties Affected; eligible sites present, but not affected as defined by 36CFR800.4 [VII (A) C (4)]. This undertaking would be documented in the Protocol log and sent to the SHPO in the next quarterly report.

Price Field Office conducted an internal scoping meeting with an interdisciplinary team of resource specialists during an on-site visit to the proposed quarry location on September 7, 2006 to identify issues and help Diamond K refine their proposal to minimize potential effects and eliminate unnecessary surface disturbances.

Appendix A, the *Interdisciplinary Team Analysis Record Checklist*, documents the relevant issues requiring detailed analysis within this EA based on issues identified during these scoping efforts. Careful consideration was given to Critical Elements of the Human Environment, elements subject to the requirements specified in statute, regulation, or executive order, which must be considered in all EAs prepared by BLM (BLM H-1790-1, Appendix 5). The checklist also identifies issues considered but dismissed from detailed analysis in this EA with appropriate justification.

The following resources and respective issues have been determined to require detailed analysis:

1.7.1 Air Quality

Issue 1: Increase in vehicle exhaust emissions from mining and haulage equipment as well as employee vehicles.

Issue 2: Fugitive dust created by the mining process and product haulage away from the site.

1.7.2 Wilderness Characteristics

Issue 1: The project area is within the boundaries of an area inventoried as "Non-WSA Lands With or Likely to have Wilderness Characteristics (BLM, 2002).

1.7.3 Threatened, Endangered or Candidate Species

Issue 1: The project area has been identified as potential habitat for the San Rafael cactus, *Pediocactus despainii*, a listed Federal endangered species (BLM, 2006b).

1.7.4 Visual Impacts

Issue 1: The project area is located in a Visual Resource Management (VRM) Class III area (BLM, 1991).

1.7.5 Noise

Issue 1: Change in noise level from mining operations

1.8 Summary

This chapter has presented the purpose of and need for the proposed project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by the implementation of the proposed project. The Proposed Action and a No Action alternative are presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative are then analyzed in Chapter 4 for each of the identified issues.

2.0 PROPOSED ACTION AND THE NO ACTION ALTERNATIVE

2.1 Introduction

This chapter presents Diamond K's Proposed Action, as submitted to the BLM Price Field Office. BLM resource specialists reviewed Diamond Ks Proposed Action and assessed the type and magnitude of potential impacts. Based on this review, the BLM developed the following alternatives for analysis in this EA:

- Alternative A - Proposed Action: This alternative includes the action formally proposed by Diamond K to develop gypsum resources.
- Alternative B - No Action Alternative: Analysis of this alternative is required by CEQ regulations, 40 CFR 1502.14.

- Alternative C – Proposed Action with Mitigation Measures (BLM Preferred)

These alternatives are discussed in this chapter. Alternatives that were considered, but eliminated from detailed analysis are also discussed here.

2.2 Alternative A - Proposed Action

2.2.1 Mining Operation and Access Road

The PO area is located on the #23-19 mining claim, located on June 6, 2006 by Karen Palmer and Phillip Palmer. This claim is in the SW¼ of sec. 23, Township 19 South, Range 10 East, Salt Lake Meridian (T19S, R10E).

Diamond K Gypsum Company has submitted a Plan of Operations to the BLM Price Field Office pursuant to 43 CFR 3809.401 (rev. October 1, 2005). The proposed operation would consist of a 4.70-acre quarry, with a 400-ft-long nominally 27.25-ft-wide access road from Emery County Road 405 adding 0.25 acres, for a total area of approximately 4.95 acres. Based on estimated average recoverable ore thickness of 15 ft and projected annual production of 60,000 tons, the 4.70-acre quarry would have a life of approximately four years. Equipment used and stored at the quarry would consist of a diesel-hydraulic reclaimer, which would grind the gypsum and stack it in low windrows on the quarry floor. The windrows would then be pushed into storage piles by a front-end loader. The loader would also fill trucks for haulage of the mined material off site. A small tool and parts trailer, a 1,000-gallon fuel tank in a neoprene-lined and bermed containment area, and a commercial portable toilet would also be located on-site, near the gypsum stockpile at the entrance to the quarry (see Map 1, Appendix B). Other equipment which might be needed for specific purposes such as access road construction, topsoil removal, and reclamation would be moved in from other locations or contracted on a temporary basis and removed from the site upon completion of the specific project. The access road would be gated and locked when the quarry is unattended.

2.2.2 Product Haulage

Typical product haulage would utilize 40-ton semi tractor-trailers. At the projected production rate, no more than ten round trips (20 total trucks) between the quarry and the Diamond K Gypsum's mill near Richfield per day would be anticipated. Two quarry employees and an average of one additional service/visitor round trips would add an additional three round trips (6 total vehicles) for a total of 13 round trips per day (26 total vehicles), or 3.25 additional vehicles per hour during a single 8-hr shift. No road improvements are anticipated by Diamond K or Emery County for this minimal increase in traffic, which would be governed by the terms and conditions of annual haul permits issued by Emery County. Two routes would be permitted by Emery County to Utah Highway 10: EM405 to EM401 to U10 just north of Castle Dale, and EM405 to EM332 to EM325 to U10 just south of Huntington. Haulage would then be southwest on U10 to

I-70, and west-southwest on I-70 to Richfield. County road use during adverse weather would be subject to the stipulations in the Emery County permit.

2.2.3 Site Maintenance

A commercial portable toilet, and a trash container if necessary, would be located in the quarry stockpile area. The toilet holding tank would be regularly pumped and their contents disposed of by the contractor in accordance with applicable rules regarding sewage treatment and disposal. All trash, debris and waste materials would be removed from the site and disposed of in a certified landfill. General site cleanup would occur every day. No petroleum products or toxic material would be drained onto the ground surface. Waste oil, lubricants, toxic material, or contaminated soil would be removed from the site and disposed of at an approved facility.

2.2.4 Reclamation

The proposed quarry area consists almost entirely of bare gypsum rock or gypsum covered with no more than 12" of topsoil and subsoil which itself is almost all weathered gypsum, mixed with varying small amounts of windblown silt and in a couple locations fragments of overlying platy shale. Where present these unconsolidated materials would be removed prior to mining and stored for redistribution during reclamation. The access road traverses about 300 ft of Travessilla series soil. At least 6" of topsoil would be removed and stockpiled for reclamation. All areas to be disturbed would be photographed and surveyed to prepare 2-ft topographic contour maps prior to disturbance, returned to approximate natural contour, and reseeded during reclamation in compliance with applicable BLM and UDOGM regulations and policies. Vegetation consists of sparse to very sparse salt shrubs and scattered perennial grasses. At the time of final abandonment, all quarry equipment and facilities would be removed. Reseeding would be performed in the fall following completion of the reclamation operations, between September 1 and November 30 depending on moisture conditions with the following seed mix:

Plant Common Name	Plant Scientific Name	Pounds per Acre
Grasses		
Indian ricegrass	<i>Oryzopsis hymenoides</i>	2
galleta grass	<i>Hilaria jamesii</i>	2
Russian wild rye	<i>Elymus psathyrostachys</i>	2
Shrubs & Forbs		
fourwing saltbush	<i>Atriplex canescens</i>	2
Castle Valley Clover (Gardner Saltbush)	<i>Atriplex gardneri</i>	2
shadscale	<i>Atriplex confertifolia</i>	2
winterfat	<i>Eurotia lanata</i>	1
scarlet globemallow	<i>Sphaeralcea coccinea</i>	½
Total		13 ½

Site reclamation will not be accepted by the BLM and UDOGM and the financial surety will not be released until vegetation within the reclaimed mine site is established to an acceptable level.

2.2.5 Applicant-committed Environmental Protection Measures

The following summarizes Applicant-committed Environmental Protection Measures that have been or would be implemented by Diamond K to avoid or minimize negative effects on resources.

Cultural Resources

An intensive cultural resource survey was conducted of the project area. No cultural resources were identified. Diamond K would instruct all employees and contractor supervisors that should they encounter cultural resources during mining operations, all operations are to cease immediately and the PFO Field Manager or Associate Field Manager contacted.

Threatened, Endangered Species, or Candidate Species

An intensive threatened, endangered, and candidate species survey was performed of the project area. The Chalk Hills Quarry area is identified as potential habitat for the San Rafael cactus, *Pediocactus despainii* (letter from Wayne Ludington, Assistant Field Manager, BLM PFO, to Bruce A. Collins, Ph.D., dated September 26, 2006), an endangered species. Surveys for this plant have been conducted, one specifically during its most-likely blooming period, between mid-April and mid-May. Though the area has been listed as potential habitat for the San Rafael Cactus, it was not found during any of the survey work.

Visual Resources

Quarry facilities (tool/supply trailer and commercial portable toilet) and equipment (reclaimer and loader) would be hidden from close-by public roads to the extent possible and painted in colors approved by BLM and consistent with the surroundings, except as may be required by safety considerations. Much of the operation would be hidden behind a low ridge formed by shale that overlies the gypsum beds, and by weathered gypsum that would be left in place on the east slope of the ridge facing EM405.

Air Quality

During normal mining operations, two diesel-powered machines, a reclaimer and a front-end-loader, would be used. Milling components of the reclaimer are fully-enclosed. At a production rate of 60,000 tons per year, a maximum of ten 40-ton semi loads per day would be hauled from the quarry to the mill in Richfield. Dust emissions on the access road from the quarry to the county road would be controlled by magnesium chloride solution application as needed. Slightly-elevated airborne emission levels could occur within the quarry during actual mining and loading operations. The quarry would be a

minor source, emitting less than 100 tons annually. Loaded haul truck would be covered to prevent in-transit fugitive dust as well as to minimize product loss.

Vegetation (including Invasive, Non-native Weeds)

In order to prevent the introduction and spread of invasive weed species into the quarry area, the following measures would be implemented:

- Haulage and operating personnel personal vehicles traveling between the quarry location and outside areas would be power-washed on a weekly basis.
- Operating personnel would be instructed to power-wash their personal vehicle after each off-road use in pastures, forests, or other areas likely to contain invasive weed species.
- Diamond K Gypsum would implement its reclamation and weed control program beginning the first growing season after initial surface disturbance. Diamond K Gypsum would reseed all disturbed areas not required for continued operation of the quarry. Reseeding would be accomplished using plant species listed under 2.2.4-Reclamation.

Wildlife (including Special Status Species)

Diamond K would survey the area to be disturbed and adjacent areas to a distance of 300 ft from all boundaries for burrows of the white-tailed prairie dog (*Cynomys leucurus*), a species of interest, all such occurrences located by GPS equipment, and mapped. Active burrows, if any, which would be expected to be limited to soft unconsolidated silt deposits east of the gypsum-bearing area, would be avoided to the extent possible throughout the life of the project.

2.3 Alternative B – No Action

Under the No Action Alternative, the Chalk Hills Quarry would not be developed. Thus the Proposed Action would not be implemented. Current land use practices would also continue. If future gypsum mining would be proposed in the Chalk Hills area, those actions would be subject to further analysis under NEPA.

2.4 Alternative C: Proposed Action with Mitigation Measures (BLM Preferred)

Alternative C is the BLM Preferred Alternative. Under this alternative, the project would be implemented as described in the Proposed Action, with the addition of special mitigation measures developed by the BLM. These mitigation measures would be attached as stipulations to the Plan of Operations to address issues related to development of the gypsum quarry and to prevent undue and unnecessary environmental degradation.

- The mine access between EM405 and the mine site and its associated drainage shall be regularly maintained to avoid erosion or the creation of a muddy, braided road. The road would not be flat-bladed, but crowned and ditched to maintain a dry running surface.
- To reduce potential sedimentation, all overburden will remain on site as stockpiles and would be used to regrade the site and used as a growing medium for revegetation. No waste rock or soil material shall be broadcast outside the quarry area.
- All topsoil removed prior to any surface disturbing activity shall be stockpiled along one edge of the operation until reclamation procedures are initiated.
- Boundaries of the site will be clearly marked and maintained for the duration of the mining operation. If PVC pipe is used to mark the boundary of the permit area, the pipe shall be capped.
- In the event cultural resources are found during quarrying the gypsum, work shall cease immediately at the site and the Price Field Office Manager or their representative shall be notified immediately. The operator will then receive guidance on how to proceed.
- In the event white-tailed prairie dogs move into the gypsum mine site, work shall cease immediately at the site and the Price Field Office Manager or their representative shall be notified. Diamond K will then receive guidance on how to proceed with operations.
- In the event that the San Rafael Cactus is discovered within the quarry, work shall cease immediately and the Price Field Office Manager or their representative shall be notified immediately. The operator will then receive guidance on how to proceed.
- Stockpiles would not exceed 15 feet in height.
- Trash shall be collected and contained and shall not be allowed to accumulate. All trash would be disposed of in an approved landfill facility.
- No oil or petroleum products shall be drained onto the ground surface. Any oil, lubricant, toxic material or contaminated soil, shall be removed from the site and disposed of at an approved facility.
- During the operation of the quarry, signs warning travelers on Emery County Road 405 of trucks turning onto the road from the mine access road should be placed as guided by Emery County.

- The quarry would not operate during the extended Easter weekend (Thursday through Sunday), and during Memorial Day and Labor Day weekends (Saturday through Monday) each year.
- The proposed quarry is located within a grazing allotment managed by the BLM. Because there are other pastures within this grazing allotment where grazing is rotated through the year, livestock may be present during the fall, winter or spring. The travel route is open range. Livestock are attracted to the shelter that quarry operations may provide. Be aware that livestock may be present in the area.
- No camping in connection with the operation would be allowed.
- At any given time the amount of disturbed area (includes roads on mining claim, processing pad and active quarry shall not exceed more than 4.95 acres. If acreage exceeds 4.95 acres this Plan of Operations must be amended and approved before operations continue.
- If the site is inactive for three consecutive years and no use is scheduled, reclamation procedures shall be initiated. Abandoned portions of the quarry shall be reclaimed within one year, or to maintain an area of 4.95 acres of disturbance or less.
- Reclamation at the site shall include the placement of mulch as directed by the Authorized Officer. The type of mulch shall meet the following requirements.
 - a. Wood cellulose fiber shall be natural or cooked, shall disperse readily in water, and shall be nontoxic. The homogenous slurry or mixture shall be capable of application with power spray equipment. A colored dye that is noninjurious to plant growth may be used when specified. Wood cellulose fiber shall be packaged in new, labeled containers. A minimum application of 1,500 pounds per acre shall be applied. A suitable tackifier shall be applied with the mulch at a rate of 60 to 80 pounds per acre.
 - b. An alternative method of mulching on small areas would be the application of straw or hay mulch at a rate of 2,000 pounds per acre. Hay or straw shall be certified weed free. Following the application of straw or hay, crimping shall occur to retain retention.
- Fencing of any reclaimed area to keep livestock out of the site shall be done at the discretion of the Authorized Officer.
- Reclamation shall be considered complete when so determined by the Authorized Officer. Reclamation shall include re-grading and re-contouring all surface

disturbance related to the mining activity including the mine access road. The area would be re-contoured to blend with the surrounding landscape and reseeded.

- Any significant departures from the Plan of Operations shall require a submission of a plan amendment to the Price Field Office. The amendment must be approved prior to the on-the-ground change. The authorized officer shall determine what constitutes a significant departure from the Plan of Operations.

2.5 Alternatives Considered but Eliminated From Detailed Analysis

During the interdisciplinary team site visit (September 7, 2006), two alternative access routes were evaluated. The first access route that was examined would have crossed Gypsum Research Development's (GRD) reclaimed mine site. The access would enter county road EM405 in the middle of a bend in the bottom of a swale, situated on top of a hill. In this location site distance is limited and turning truck traffic would pose a potential hazard to other vehicles traveling this road. Based on observations, the general public typically travels EM405 at speeds that exceed 50 mph.

The second possible access the interdisciplinary team visited was a two-track road that joins EM406 west of GRD's reclaimed site, at the bottom of a hill. Again, at this location site distance is short due to the junction being in a curve and at the bottom of a hill, where turning truck traffic could pose a potential hazard.

BLM discussed both access points with Emery County Planning. Due to the number of people that visit the area and the speeds traveled on County Road EM405, that from a public safety standpoint, the proposed access is the best alternative. This junction has the longest site distance and it is the access point preferred by the Emery County.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 Introduction

This chapter presents the potentially affected environment (i.e., the physical, biological, social, and economic values and resources) of the Chalk Hills Quarry project area, and provides the baseline for comparison of impacts/consequences described in Chapter 4.

3.2 General Setting

The Chalk Hills Quarry area is located 14 miles southeast of Castle Dale, Utah. Locally the project area is in the northeast part of an area of low-relief topography known as the Chalk Hills. The Chalk Hills lie between the prominent dip-slopes and canyons of the northwestern San Rafael Swell to the east and the drainages and related escarpments of Castle Valley to the west, with the more dramatic escarpment of the central Wasatch Plateau further west. Elevations within the EA area range from about 5,775 ft above sea level (asl) in the northwest corner of that part of claim #23-19 in the EA to about 5,810 ft

asl along the south boundary of the claim, for total relief in the project area of approximately 35 feet. Vegetation on the PO area is typical arid to semi-arid, with several varieties of cactus, sagebrush, Mormon tea, rubber rabbitbrush, and broom snakeweed as well as Indian ricegrass and other native grasses. Vegetation is concentrated on gentle sloping ground covered by mostly fine unconsolidated material east of and below gypsum outcrops. A substantial portion of the area consists of bare shale and gypsum as well as partially-weathered gypsum exposures that are essentially devoid of vegetation.

3.3 Resources/Issues Brought Forward for Analysis

Resources considered in this EA include the CEHE (USDI-BLM 2004a), as well as other resources/issues of concern raised by the BLM. The resources that are analyzed in detail in this chapter are limited to Air Quality; Threatened, Endangered Species, or Candidate Species; Wilderness Characteristics; and Visual Resources. Resources/issues dismissed from further analysis after site examination are set forth in the Interdisciplinary Team Analysis Record Checklist, Appendix A of this document. These resources and issues were dismissed without further review because they are not present, because the alternatives would have no measurable negative effect on the resource or issue, or because applicant-committed environmental protection measures, described in Section 2.2.8, would mitigate impacts to negligible levels.

3.3.1 Air Quality

The area encompassing the proposed Chalk Hills quarry has been designated as a Class II airshed in accordance with the Clean Air Act, as amended in 1990. This classification means that air quality has not exceeded National Ambient Air Quality Standards (NAAQS) (40 CFR 81.345). Although largely rural to vacant land in character, air quality in the region is affected by large coal-fired power plants at Castle Dale and Huntington, as well as dust generated by traffic on unsurfaced roads as well as from natural sources. The more heavily-traveled Emery County roads in the project area are graveled, treated with dust suppressants, or both.

3.3.2 Threatened and Endangered or Candidate Species

The Chalk Hills Quarry area has been identified as potential habitat for the San Rafael cactus, *Pediocactus despainii* (letter from Wayne Ludington, Assistant Field Manager, BLM PFO, to Bruce A. Collins, Ph.D., dated September 26, 2006). The San Rafael cactus is a small, subglobose to ovoid cactus with usually solitary stems; the crown of the stem is at or very near ground level. Its flowers are born near the tip of the stem, are yellow bronze to peach bronze, rarely pink in color, and bloom during April and May. In the Chalk Hills area the San Rafael cactus is found in fine textured soils rich in calcium derived from the Carmel Formation. It shrinks substantially during dry summers and cold winters, to and even below the ground surface. Under favorable temperature and moisture conditions a second short fall growing season may occur.

The San Rafael cactus was listed as an endangered species under the authority of the Endangered Species Act of 1973 on September 16, 1987 (52 FR 34917). The primary threat to the cactus is described as collectors, followed by human and livestock trampling, off-road vehicle use, and mineral exploration and development (draft USFWS recovery plan, 1995). Preferred habitat for *Pediocactus despainii* consists of fine-textured, mildly alkaline soils rich in calcium derived from limestone substrates of the Carmel Formation and the Sinbad Member of the Moenkopi Formation. In the immediate area of the project the single recorded site consists of Travelessilla soil of unknown thickness developed over Carmel Formation bedrock at the top of the lower unit of the Carmel Formation, which consists mostly of limestone, and immediately below the gypsum beds of the upper unit (Whitkind, 1988). This habitat is present along the proposed access road route, about 1,460 ft north of the cataloged site, while the rest of the proposed quarry area consists of bare gypsum rock, a thin veneer of weathered gypsum mixed with varying amounts of wind-blown silt, and gypsiric soil. *Pediocactus despainii* is not known in this habitat.

The proposed access road, quarry, and surrounding area were surveyed on November 6, 2006, by Ronald J. Kass, Ph.D., Botanist. No plants were located. Dr. Kass concluded that there is a low probability of occurrence in low-quality habitat due in part to cattle grazing and trampling, as well as an apparent lack of micro-habitat factors such as edaphics and vegetation composition. Dr. Kass conducted an intensive survey of the project area for threatened, endangered, and candidate plant and animal species during the week of April 16, 2007 (Kass, 2007). No *Pediocactus despainii* plants were observed. Flowering plants were identified the same day elsewhere in the vicinity of the Wedge area.

3.3.3 Wilderness Characteristics

The project area is located within non-WSA lands determined to have wilderness characteristics. The "Price Field Office Revisions to the 1999 Utah Wilderness Inventory" (BLM 2002) identifies a total area of 35,109 acres, contiguous to the Sids Mountain WSA, to possess wilderness characteristics. During the original review and revision, the area was divided into separate units primarily due to the presence of CRs 405 and 406.

In accordance with the Wilderness Act of 1964 (16 U.S.C. 1131-1136, 78 Stat. 890), "wilderness" is "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvement or human habitation, which is protected and managed so as to preserve its natural conditions" The Act then establishes the criteria for wilderness, which include naturalness; possessing outstanding opportunities for solitude or primitive and unconfined recreation; being at least 5,000 acres or of sufficient size as to make practicable its preservation and use in an unimpaired condition; and being roadless, roads being defined as roads maintained by mechanical means to ensure relatively regular and continuous use. The land may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. The PA lies in a non-WSA area adjacent with the Sids Mountain WSA to the south that exceeds 5,000 acres in size, offers opportunities for solitude as well as primitive and unconfined

recreation, and possesses "naturalness" within the context of the Act, that is it appears to have been affected primarily by the forces of nature, with the imprint of man substantially unnoticeable to the average visitor.

The 1999 wilderness inventory determined the area not to be natural in character because of "the impacts from vehicle ways, OHV intrusions, and livestock developments." However, the 2002 revisions recognize the areas naturalness stating that "these impacts were determined to be unsubstantial in the area as a whole because they were widely scattered and small in size and scale. Opportunities for solitude and primitive and unconfined recreation occur within the area, especially given its continuity with Sids Mountain WSA. These opportunities include hiking, photography, primitive camping, and exploring. Supplemental values include scenic values, wildlife habitat and viewing opportunities, the special status San Rafael cactus, scattered cultural resources, and interesting specimens of rock (e.g., petrified wood, geodes, etc.).

3.3.4 Visual Resources

The project area is classified as VRM III. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. These elements are subdued but rolling to "lumpy" topography; shallow locally steep-sided meandering arroyos; and sparse salt-desert vegetation.

3.3.5 Noise

The ambient noise level at the proposed quarry location was measured with a dosimeter on September 25, 2007 at about 10:00 am. The ambient level was recorded to be 50.3 dBA.

Conditions at the time of the recording were clear, at approximately 55 degrees Fahrenheit, with no wind. Audible ambient noises observed included the faint drone of distant motors, perhaps coal haul trucks or other large vehicles on the closer highways, vehicles on nearby county roads, jet airplanes passing at high altitudes at nearly consecutive intervals, the song and flight of scattered birds, and an occasional mooing of a cow.

The recorded noise level, 50.3 dBA, is comparable to the noise level of a force air heating system or the level of a radio playing in the background.

The ambient noise level was also recorded at the Wedge Overlook, approximately 4.5 miles to the south of the proposed quarry location, also on the morning of September 25, 2007. Audible noises at the overlook were similar to those at the quarry location, except the San Rafael River was also audible in places. The level was recorded at 50.2 dBA.

4.0 ENVIRONMENTAL IMPACTS

This chapter provides an analysis of the environmental consequences from implementation of the Proposed Action and the No Action Alternative. Applicant-Committed Environmental Protection Measures that would avoid or reduce impacts under the Proposed Action have been included in Chapter 2.0 of this EA, and the analyses in this chapter assume that those measures would be implemented.

4.1 Alternative A – Proposed Action

Direct impacts are defined as effects that are caused by the action and occur at the same time and/or place (40CFR 1508.8). Indirect impacts are effects caused by the action, but are later in time and/or place. The potential direct and indirect impacts from the Proposed Action and the No Action Alternative are discussed in the following sections of Chapter 4.

4.1.1 Air Quality

Air quality would be affected by exhaust fumes from mining equipment and haul trucks and by fugitive dust generated by mining as well as product loading and haulage off-site. During normal mining operations, two diesel-powered machines, a reclaimer and a front-end-loader, would be used. At a production rate of 60,000 tons per year, a maximum of ten 40-ton semi loads per day would be hauled from the quarry to the mill in Richfield. Exhaust emissions due to haulage would thus be transient, amounting to only seconds per day at any given location. Slightly-elevated airborne emission levels could occur within the quarry during actual mining and loading operations. Such emissions would be localized and would dissipate quickly when equipment is shut down. The quarry qualifies as a minor source since it would emit less than 100 tons annually.

Milling components of the reclaimer are fully-enclosed and as a result the mining operation would produce very little fugitive dust. Stockpiling and haul-truck loading would produce minor amounts of coarse gypsum dust which would settle quickly. Small amounts of fine dust, produced mostly by equipment operations on the gypsum floor of the quarry, raised during occasional periods of high winds, would dissipate rapidly. Dust emissions on the access road from the quarry to the county road would be controlled by magnesium chloride solution application as needed. Emery County routinely treats all unpaved public roads that would be used for truck haulage from the site. Diamond K would participate in county road maintenance as may result from increased traffic levels attributed to the quarry, in accordance with the required Annual Haul Permit, which would define alternate routes and road-condition restrictions, if any. Loaded haul truck would be covered to prevent in-transit fugitive dust as well as to minimize product loss.

4.1.2* Threatened and Endangered Species

San Rafael Cactus (*Pediocactus despainii*)

Direct impacts to the San Rafael cactus could include loss of habitat and destruction of unidentified individual plants. The proposed access road, quarry, and surrounding area were surveyed on November 6, 2006, by Ronald J. Kass, Ph.D., Botanist. No plants were located. Dr. Kass concluded that there is a low probability of occurrence in low-quality habitat due in part to cattle grazing and trampling, as well as an apparent lack of micro-habitat factors such as edaphics and vegetation composition. Dr. Kass conducted an intensive survey of the project area for threatened, endangered, and candidate plant and animal species during the week of April 16, 2007 (Kass, 2007). No *Pediocactus despainii* plants were observed. Flowering plants were identified the same day elsewhere at locations known to the surveyor. Dr. Kass's report concludes:

No *P. despainii* were located within the project area Habitat does not appear suitable and it is unlikely that any cacti will be found on this particular substrate

Therefore a determination was made that the proposed quarry would have no effect on threatened, endangered, or candidate species.

4.1.3 Wilderness Characteristics

The Chalk Hills Quarry would have an impact on the naturalness of the area resulting in the surface disturbance of 4.95 acres. This direct disturbance equates to a only a fraction of a percent of the 35,109 acres of non-WSA lands with wilderness characteristics.

The naturalness would be affected by the elevated noise level where it occurs within the 905 acres surrounding the proposed quarry location (see § 4.1.5 for more details on effects from noise). Much of the area is already subjected to the regular noise of travel on CR 405 and 406, which borders or transects the non-WSA lands with wilderness character (there is 5.01 miles of county roads within 1.5 miles of the proposed quarry location).

The visual intrusion of the proposed quarry would also affect the naturalness of the area, such that it may be visible from roughly 41 percent of the lands with wilderness characteristics within a 1.5 mile radius. This, however, assumes no vegetation would screen the quarry location, when, in actuality, much of the area is forested with pinyon and juniper trees.

Opportunities for solitude and primitive and unconfined recreation would also diminish with the elevated noise level and potential visual intrusion within closer proximity to the quarry. Most of the supplemental values are associated with areas elsewhere in the contiguous lands with wilderness characteristics, such that they would not be threatened

by the project (while project area includes habitat for the San Rafael cactus, none were found during the survey—see § 4.1.2).

The quarry would be reclaimed to approximate original contour and revegetated with the recommended seed mixture to reestablish naturalness as well as revive opportunities for solitude and primitive and unconfined recreation, although exact restoration of original conditions would not be possible.

4.1.4 Visual Resources

The quarry operation would expose fresh gypsum, which varies from light gray to almost pure white. Much of the quarry area is naturally exposed gypsum, which varies from light gray and tan to off-white. As a result, while the “whiter” white of the fresh gypsum would be visible from a distance, it would be difficult to differentiate from the natural topography. No part of the quarry, including the access road, would be closer to Buckhorn Road, CR-401, than about 1.4 miles, with the unnumbered Fuller Bottom Draw Road 1.6 miles and more to the northwest through southwest. The quarry access road and the eastern end of the quarry would be visible from CR-405, but most of the operation would be hidden behind a low ridge formed by shale that overlies the gypsum beds, and by weathered gypsum that would be left in place on the east slope of the ridge facing CR-405. Quarry facilities and equipment would be limited to a tool/equipment shed to be painted in a compatible color approved by BLM, fuel tank, and commercial portable toilet chosen to blend into its surrounding as much as possible; and a reclaimer and front-end loader to be painted safety white.

Therefore, the proposed activities may attract attention but would not dominate the view of the casual observer, which is consistent with the VRM III classification for the area. Reclamation would include regrading to approximate original contour and revegetation and so would repeat the basic elements found in the predominant natural features of the surrounding landscape.

4.1.5 Noise

Measurements were taken by a Utah State Highway Safety Supervisor of the actual Caterpillar RR250 to be used during operations of the quarry. The maximum sound level generated by the machine is on its right side (a 2-ft distance is assumed for calculation purposes) with both engine and milling components working at maximum output. This was recorded at 111.8 dBA, a level comparable to the maximum output of a stereo or a symphony orchestra at full volume. Taken 10 ft from the front and back of the machine, the measurements were recorded at 94.2 dBA.

Applying a standard equation, where dBA is reduced by six with every doubling of distance, the noise generated by the quarry operations is expected to attenuate to between 48.2 and 51.8 dBA, a noise level consistent with the ambient level (50.3 dBA), at about

2000 ft. Given a radius of 2000 ft, approximately 905 acres surrounding the proposed quarry would be subject to elevated noise levels.

Since the proposed quarry location is well within the Sids Mountain area of non-WSA lands identified to have wilderness characteristics (which is contiguous to the Sids Mountain WSA), approximately 905 acres would be affected by the elevated noise level. This represents approximately 2.5 percent of the 36,000 acre area identified to have these characteristics. The naturalness and opportunity for solitude within the 905 acres would be diminished during the hours the quarry is in operation.

At 1000 feet from the source, which is roughly the distance to the closest area of crucial year-long white-tailed prairie dog habitat, the sound level would be between 54.2 and 57.8 depending on the orientation of the equipment, which is comparably to the level of a microwave oven or clothes washer. Of the 10,650 acres of crucial year-long habitat in the general vicinity of the proposed quarry location, only 49.1 acres (less than .5 percent) are within the 2000 ft where the noise level would be elevated.

Since the boundary of the prairie dog habitat coincides with CR 405, the noise generated by traffic on this road regularly subjects the habitat to noises similar to those of the quarry equipment. In general, white-tailed prairie dogs are known to inhabit areas along major highways and interstates (as is evident along U.S. Highway 40 and Interstate 70 in eastern Utah, for example). The elevated noises within the 49.1 acres of crucial year-long habitat are not expected to diminish the availability of crucial year-long prairie dog habitat.

The noise level on CR405 at its closest proximity to the proposed quarry, would be between about 62 and 65 dBA, a range comparable to the level produced by a typical home dishwasher or clothes washer. This noise level would not likely constitute a nuisance to recreational passersby, even if the quarry equipment is audible above their own vehicle (including the common use of its radio or stereo).

At the Wedge Overlook, the nearest developed recreational site approximately 4.5 miles to the south, the attenuation would be at 32 dBA, well below the ambient level recorded at the location (50.2 dBA). All other camping opportunities in the vicinity of the Wedge Overlook are also well beyond the 2000 ft where the noise level would be elevated.

It is important to note that all of these estimates assume no attenuation by topography or vegetation and are not adjusted for actual source frequencies, background noise, or intervening sound sources ranging from road traffic, wind, birds, etc. These estimates are very conservative given the hilly topography, vegetation, and other such factors in the immediate area surrounding the proposed quarry location.

4.2 Alternative B – No Action

Under the No Action alternative, Diamond K would not develop the Chalk Hills Gypsum Quarry. No additional surface disturbance would occur as a result of access road

construction or gypsum mining. There would be no air quality impact from mining or product haulage, no visual impact, and no need for site reclamation.

4.3 Alternative C – Proposed Action with Mitigation (BLM Preferred)

4.3.1 Air Quality

The impacts on air quality would be the same as described under Alternative A.

4.3.2 Threatened and Endangered Species

San Rafael Cactus (*Pediocactus despainii*)

The impacts to the San Rafael cactus would be the same as discussed in Alternative A. However, because the proposed quarry is located within potential San Rafael Cactus (*Pediocactus despainii*) habitat, a stipulation would be added to the Plan of Operations requiring the operator to immediately cease operations if cacti are encountered during work.

White-tailed Prairie Dog (*Cynomys leucurus*)

The project area was surveyed for the presence of white-tailed prairie dogs (*Cynomys leucurus*), no individuals or towns were identified. Therefore the impacts to the white-tailed prairie dogs (*Cynomys leucurus*) would be minimal to non-existent. A stipulation would be added to the Plan of Operations that operations would cease immediately and the PFO would be contacted should white-tail prairie dogs move into the project area.

4.3.3 Wilderness Characteristics

The impacts to wilderness characteristics would be the same as for Alternative C. However, to improve the sense of naturalness visitors would experience near the mine site, operations at the mine would be limited during peak recreation weekends, specifically, Easter, Memorial Day, and Labor Day.

4.3.4 Visual Resources

The impacts to visual resources would be the same as for Alternative C, except a limitation on stockpile height would further ensure the visual intrusion remains within the parameters of the VRM III classification.

4.3.5 Noise

The impacts to noise would be the same as for Alternative C. However, to improve the sense of naturalness visitors would experience near the mine site, operations at the mine

would be limited peak recreation weekends, specifically, Easter, Memorial Day, and Labor Day.

4.4 Monitoring and Compliance

No monitoring needs have been identified for this action. However, if the operation is authorized, BLM must regularly visit the site for compliance inspections. These inspections would evaluate the operation to ensure activities comply with the approved Plan of Operations. If the operation is not found to comply, a Letter of Noncompliance would be issued to the operator notifying them of what the issue of noncompliance is, how it is to be remedied, and in what time frames the remediation must occur. In most cases the operator would be required to stop operations until the situation is remedied (43 CFR 3809).

4.5 Cumulative Impacts Analysis

"Cumulative impacts" are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions. Additionally, reasonably foreseeable actions could cumulatively affect the same resources.

Past or ongoing actions that affect the same components of the environment as the Proposed Action are limited to the location of mining claims, all now abandoned except for the group of claims held by Diamond K, and the abandoned Gypsum Resources Development (GRD) quarry in the SW $\frac{1}{4}$ of sec. 23, T19S, R10E, immediately northeast of the proposed Diamond K quarry. Although the GRD quarry has been closed for several years, the site has only recently been partially reclaimed.

Diamond K retains claims totaling 745 acres not including the five acres that are the subject of this EA. Of this area, approximately 320 acres, all north of the road through the south edge of claims 26-7 and 26-8, are thought to be gypsum-bearing. Expansion of the Chalk Hills Quarry could thus result in the cumulative disturbance of approximately 325 acres, although with concurrent reclamation, even at substantially increased production rates no more than 20 acres -- 5 acres in preparation, 5 acres in the active quarry, 5 acres undergoing reclamation, with less than 5 acres maximum for surface facilities, including haulage for the life of the mine -- would be disturbed at any one time. Before this occurs Diamond K would have to submit a new mining Plan of Operations. Mine expansion would occur only if the quality of gypsum was consistent enough to support development and the gypsum market remains stable.

There are no other active mining claims in the immediate vicinity of the project area. However, the area remains open to location of locatable metals and minerals, leasing of leasable minerals and mineral fuels, or disposal of common variety minerals, all in accordance with applicable statutes. There are known gypsum resources that are not within the Diamond K Gypsum's group of claims, the area has been leased for oil and gas in the past, and therefore future mineral development is possible.

4.5.1 Air Quality

The Chalk Hills Quarry would be a minor source of air pollutants. Because of the small scale of the quarry and proposed controls, diesel equipment emissions from and fugitive dust generated by mining and product haulage operations would be minimal and would dissipate quickly. Any expansion of operations onto remaining Diamond K mining claims would not be additive in nature, but a continuation of proposed levels of mining and subsequent effects. Potential expanded operations would have no cumulative impact on air quality of the area when considered with expanded operations, nor would its minor source result in cumulative effects when considering major sources in the region.

4.5.2 Threatened and Endangered Species

Approximately 0.25 acres of potential habitat for the San Rafael cactus (*Pediocactus despainii*) would be disturbed for the life of the project. This area is considered to be low-quality habitat as the result of livestock grazing and trampling as well as other factors. While included in the area identified as potential habitat for *Pediocactus despainii*, the rest of the proposed quarry area consists of substrates not known to host the cactus. None of the remaining area held under mining claims by Diamond K is thought to be suitable habitat for *Pediocactus despainii* so expansion would have no cumulative impact on the cactus. Therefore the cumulative impact of the project on *Pediocactus despainii* would be negligible.

Under the Plan of Operations, 4.95 acres of potential white-tailed prairie dog habitat would be disturbed until reclamation. No white-tailed prairie dogs are known to live in the vicinity of the proposed quarry, and it is not known how long it would take for white-tailed prairie dogs to populate the quarry site after reclamation. The cumulative impacts on the white-tailed prairie dog are expected to be at minimum because the mine site would be reclaimed. Any future surface disturbance related to mine expansion would be analyzed under a new Plan of Operations and EA.

4.5.3 Wilderness Characteristics

If operations were expanded onto the remaining Diamond K mining claims, approximately 325 acres could be developed. This represents less than one percent of the total 35,109 acres of non-WSA lands in the Sids Canyon area with wilderness characteristics. All of the affected lands would be reclaimed at rates consistent with the Plan of Operations. Future expansion is possible and would be analyzed under a new mining Plan of Operations and associated EA. However, other effects such as noise levels and the visual intrusion would be similar to the direct and indirect effects of this project, rather than substantially additive.

4.5.4 Visual Resources

The Chalk Hills Quarry under the Plan of Operations would result in a total of 4.95 acres of disturbance, although reclamation would begin in mined-out areas not required for haulage or product storage and loading immediately upon completion of resource extraction, and would proceed concurrently with mining. Except for the access road, potential expanded operations onto remaining Diamond K mining claims would not be visible from EM405, and visibility from EM401 would decrease as distance to the active quarry area increases. Therefore cumulative visual impacts would be similar to direct impacts, which are expected to be minimal.

5.0 CONSULTATION AND COORDINATION

5.1 Persons, Groups, and Agencies Consulted

Table 5-1: List of all Persons, Agencies and Organizations Consulted.

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Utah State Historic Preservation Office (SHPO)	Consultation for undertakings as required by the National Historic Preservation Act (NHPA) (16 USC 470)	A Class III cultural resource inventory was completed for the Chalk Hills Quarry in 2006. No historic or prehistoric sites were located. Per Protocol Agreement, the project was listed on the 2006 project log with a determination of "no historic properties affected".
Northwestern Band of Shoshoni Nation, Shoshone-Bannock Tribes, Paiute Indian Tribe of Utah, Navajo Shoshone, Uintah & Ouray Ute Tribe, Hopi Tribe, Southern Ute Tribe, Ute Mountain Tribe, Zuni Tribe	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	The only response received was from the Hopi Tribe, who requested copies of the cultural resource reports. No other tribe has responded identifying any concerns. Lack of response is interpreted by BLM to indicate that the Tribe has no concerns relative to the proposed action.
Hopi Tribe	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	The Hopi Tribe requested copies of the cultural resource survey report for this project to review and comment on. The report was mailed on February 23, 2007. A letter dated March 2, 2007 was received by PFO on March 12, 2007. This letter pointed out a discrepancy between the initial acreage proposed for this project and what had been surveyed. This was remedied by changing the proposed action to the five acres surveyed in under the cultural resource survey report. A letter dated April 25, 2007 explaining this change was mailed to the Hopi Tribe.

5.2 Preparers

Table 5-2: List of Preparers

This Environmental Assessment was prepared by Bruce A. Collins, Ph.D. (a third party contractor) with direction and independent review by BLM resource specialists in the Price Field Office. Preparers are listed below.

BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Angela Wadman	Geologist	Project Leader/Native American Consultation
Rebecca Doolittle	Geologist	NEPA Review
Brad Higdon	Environmental Coordinator	NEPA Review
Katie Nash	Land Law Examiner	Noise measurement
Karl Ivory	Natural Resource Specialist	Threatened and Endangered Plants, noxious weeds
David Waller	Wildlife Biologist	Threatened and Endangered animals
Tom Gnojeck	Outdoor Recreation Planner	Wilderness Character
Ray Jenson	Range Management Specialist	Range

Non-BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Bruce A. Collins Bruce A. Collins, Ph.D. P.O. Box 23 Silt, CO 81652	Natural Resources Consultant	Overall preparation of Chapters 1 through 4, draft preparation of remaining chapters and appendices
Bethany Collins Bruce A. Collins, Ph.D. P.O. Box 23 Silt, CO 81652	Technical Assistant	Areas of Critical Environmental Concern, Rangeland Management, Threatened, Endangered, or Candidate Species, Visual Impact, Vegetation, Fish & Wildlife
John A. Senulis Senco-Phenix Archeological Consulting Services 1405 West 620 North Price, UT 84501	Director Charge of Fieldwork	Cultural Resources
Ronald J. Kass, Ph.D. Botanist, PWS Intermountain Ecosystems, LLC 270 East 1230 North Springville UT 84663	Botanist	Threatened, Endangered, and Candidate Species (<i>Pediocactus despainii</i> survey)

5.2 Summary of Public Participation

Public notice of the Diamond K Gypsum's Chalk Hills Quarry proposal was posted on the Utah BLM Environmental Notification Bulletin Board (ENBB) on October 23, 2006 to indicate an EA would be prepared to evaluate the project. On June 16, 2007, the EA was made available via link from the ENBB notice for a 30-day public review and comment period. The public comment period ended on July 17, 2007. One comment letter was submitted to BLM.

General note: the commenter frequently refers to the "Diamond K leases," "the leases," the "mining claim leases," and other variations in reference to the unpatented mining claims properly located and maintained by Diamond K Gypsum. The terms "lease" and "mining claim" are not interchangeable. During the BLM's review of the comments and the EA it was noted that the EA made references to "Diamond K leases" etc. This was an error made during the writing of the EA. Diamond K has staked claims under the General Mining Law of 1872. Gypsum is not defined as a leasable mineral under the Mineral Leasing Act of 1920, where the rights to extract minerals, such as phosphate, coal and oil and gas, are typically purchased through competitive sale and royalties are paid to the U. S. Treasury for the minerals produced.

Comment 1A: ... the BLM must disclose who provided independent analysis of the information submitted by Diamond K Gypsum Company and Diamond K Gypsum's third-party consultants and the qualifications of those reviewers.

Response 1A: Table 5-2 lists the BLM preparers, including those involved in the review of information Diamond K and its third-party contractor provided in preparation of this document. In addition, Appendix A, the Interdisciplinary Team Analysis Record Checklist, identifies the BLM specialists that participated in the preparation of this document.

Comment 1B: BLM's Alternatives Analysis Violates NEPA.

Response 1B: Council on Environmental Quality (CEQ) regulation 1502.14(a) requires agencies to "Rigorously explore and objectively evaluate all *reasonable* alternatives..." and 42 CFR§102(2)(E) directs agencies to "study, develop, and describe *appropriate* alternatives to recommended courses of action..." in the preparation of an environmental assessment (emphasis added). Other than the requirement to "Include the alternative of no action" (CEQ regulation 1502.14(d)), the regulation only demands other alternatives be reasonable and appropriate alternatives to the proposed action. The BLM gave full consideration to access and hours of operation of the quarry, limiting noise, and addressing and maintaining wilderness characteristics of the project area during the site visit. Alternative C was added to provide extra operating measures that would further protect the environment.

Response 2B: The access road location was selected to maximize safety and minimize visual resource concern.

Response 3B: Restricting times of operation would further prolong any impact on the human environment. However, a stipulation was placed in Alternative C requiring the mine to limit their operations during high use recreational weekends, specifically, Easter, Memorial Day and Labor Day weekends. This would minimize conflicts with people visiting the area. During the rest of the year, the mine would operate during daylight hours as described under Alternative A.

Response 4B: Noise – An analysis of noise has been added to the EA (see § 3.3.5 and 4.1.5).

Response 5B: The minimization of surface disturbance, mitigation, and reclamation have been thoroughly addressed and applied in the proposed action. Alternative C was added to include further mitigation to the proposed action.

Comment 1C: The Diamond K Gypsum EA fails to take a “hard look” at the potential impacts from the proposed action in the following areas: proposed action purpose and need; land use plan conformance; relationship to statutes, regulations, or other plans; air quality; product haulage; reclamation; area of critical environmental concern (ACEC); recreation; soils and vegetation; wilderness character; wildlife; wild and scenic rivers; and sound.

Response 1C: Need - Diamond K Gypsum is an established company which has been quarrying gypsum in Emery County and preparing high-quality gypsum products for agriculture, landscaping, and food products at its plant in Richfield, Utah, since 1991. BLM is not required to perform a marketing analysis to determine the future viability of the operation. This § is changed to identify specific markets for the gypsum.

Response 2C: Purpose- BLM’s mission is to manage resources for multiple use and sustainable yield, which requires BLM to find ways to balance all resources. The Decision Record will provide a rationale for BLM’s ultimate decision on this action, including a statement on how a decision will meet agency objectives.

Response 3C: Conformance with BLM Land Use Plan - The 1991 San Rafael Resource Management Plan (RMP) is the appropriate land use plan on which the proposal activity is based. An objective of the SRRMP, as stated on page 19, is “to make public lands available for claim location and mineral development, so long as the scenic values, relict vegetation, and cultural or historic values identified in the RMP goals are protected . . .” Under the current plan, this area is open for mineral development under the General Mining Law of 1872. Under this law, claimants have the right to remove minerals and occupy the surface as long as it is reasonable and incident to the operation. Access to these minerals may not be denied unless undue and unnecessary degradation of the environment can be

proved. In terms of land use plan conformance, any new information identified subsequent to the RMP that is relevant to potential effects must be used in the analysis of this action. In this case, BLM is using new information to evaluate the potential effects on wilderness characteristics.

Response 4C: Regarding BLM's preparation of the RMP revision, Interior Departmental Manual 516 (11.4)(G) indicates that during preparation of a RMP revision, BLM may undertake an action within the scope and analysis of the existing NEPA document for the current land use plan as long as the action is adequately evaluated in a NEPA document specific to the individual action.

Response 5C: Relationships to Statues, Regulations or other Plans- The absence of the white-tail prairie dog from the action area and potential mitigation measures if observed are discussed at length in §2.3 of the EA. Based on these observations and expertise of a qualified biologist, those species relying on the "absent" prairie dog as a food source would not be impacted. The purpose and need for this project is not to enhance habitat for indicator species; however the project will maintain and/or reclaim the current characteristic habitat. These species are appropriately dismissed from detailed analysis, and their management plan documents are not relevant to the analysis in this EA.

As stated in § 1.6, the proposed quarry is located in an area zoned for mining by Emery County, and Diamond K Gypsum has obtained an Annual Haul Permit for the use of Emery County roads as identified in the EA. The Utah Division of Oil, Gas and Mining has issued a mining permit for the operation. While the proposed quarry is located within the boundaries of the 966,000 acre San Rafael Swell Special Recreation Management Area (SRMA), established by BLM in the San Rafael RMP, there are no recreational facilities or developed sites within approximately 4.5 miles from the quarry. BLM anticipates no direct and indirect impacts to recreational opportunities related to the SRMA as a result of the quarry operations.

Table 5-1 in the EA presents the persons, groups, and agencies consulted and their responses. The reference to "other agencies" in § 2.1 is removed.

Response 6C: Air Quality -Consultation with the Utah Division of Air Quality (DAQ) is necessary only if the Utah Division of Oil, Gas & Mining (DOGM) so requires it as part of their permitting process. DOGM has issued the necessary permit without requiring such consultation. See § 1.6.

Response 7C: How reclamation will aid soil stability and air quality – DOGM permits require compliance with Utah Administrative Rule R307-205-7, and the BLM's surface management regulations in 43 CFR 3809 require reclamation and erosion control where warranted. Inspections for surface compliance with the mining plan of operations would be made by both DOGM and BLM personnel on a regular basis. Notices of Noncompliance would be

issued if the area is poorly reclaimed or if erosion occurs and is not mitigated or repaired.

Response 8C: Surrounding vistas and cumulative air quality impacts – The Plan of Operations is located in a Class II airshed and qualifies as a minor source, §2.2.5, 3.3.1. A single minor source contribution to the airshed would be negligible in combination with the major sources in the region. Through an EPA-approved state program the Utah Division of Air Quality is responsible for air quality monitoring and enforcement in the affected area.

Response 9C: Product haulage – Given that road capacities far exceed traffic estimates provided by Emery County, a detailed traffic study is not considered necessary. All local roads affected by this action are Emery County and State of Utah roads and highways.

Response 10C: Reclamation – Recommended seed mixture, applications rates, and timing are discussed in §2.2.4.

Response 11C: Delays in reclamation of neighbor quarry -- The referenced quarry is not within the boundaries of the proposed quarry as described in Plan of Operations for and actions related to reclamation of the neighbor quarry are beyond the scope of the Diamond K EA.

Response 12C: Bonding –BLM requires the financial guarantee to cover 100% of the cost of reclamation. To prevent double bonding, the BLM and Utah Division of Oil, Gas and Mining (DOGM), calculate the bonds for any given mining operation. The bonds are in the name of both the BLM and DOGM, but are held by DOGM. A financial guarantee must be in place before full approval to commence operations is given by both the BLM and DOGM.

Response 13C: ACEC – The proposed quarry is outside of any existing ACEC, and the area is not proposed as an ACEC for consideration in Price Field Office's current land use plan revision effort. BLM adequately dismisses issues pertaining to potential impacts to the ACEC. In the event that Diamond K Gypsum Company expands the quarry to portions of its claim within the San Rafael Canyon ACEC, additional NEPA analysis would include a discussion of direct, indirect, as well as cumulative impacts on the ACEC.

Response 14C: Recreation – While the proposed quarry is along the access route to recreational destinations (e.g., Wedge Overlook, Sid's Mountain, and Buckhorn Wash), those destinations are 4.5 miles or more from the quarry location. As indicated the quarry location is within the boundaries of the San Rafael Swell Special Recreation Management Area, but there are no developed recreation facilities present or planned within the 4.5 miles of the project area. Nor is the proposed quarry within the viewshed of any recreational destination.

Also, given the capacity of the access road (see §3.2 of the EA), there are no foreseeable issues related to potential increases in traffic as a result of quarry operations.

Response 15C: San Rafael cactus (*Pediocactus despaini*) - Portions of the project area were habitat for the San Rafael cactus is present was intensively surveyed by a qualified biologist (see §3.3.2 of the EA). The survey conducted during the plant's peak flowering period, when blooming individuals were found in the area of the Wedge Overlook, located no plants within or immediately adjacent to the PA area. Conclusions were made by the biologist that the habitat was poor quality and that it is unlikely that the cactus would be present in this area. Consultation with U.S. Fish and Wildlife Services is not necessary since there is no potential to affect the cactus.

Response 15C: Revegetation monitoring plan – Revegetation monitoring and bond release are governed by statutes and regulations of the Utah Division of Oil, Gas & Mining, which is set forth in the approved mining permit from UDOGM and accepted by the BLM.

Response 16C: Wilderness Characteristics – The commentor must recognize the valid existing rights of Diamond K Gypsum to develop its claim. Since BLM must ensure it adequately analysis the effects on wilderness characteristics, the analysis of impacts on wilderness characteristics has been expanded.

Response 17C: Cumulative Impacts and Naturalness – The EA considers the cumulative effects on naturalness (see §4.4.3) even though there is currently no planned or permitted development of Diamond K's claims other than the proposed action. It adequately concludes that reasonably foreseeable effects are similar to the direct and indirect effects evaluated for the current proposal. However, given that future quarry expansion, operations, and reclamation would occur in limited increments of up to 20 acres at a time, the footprint of direct surface disturbance would be larger. In the event that Diamond K Gypsum Company expands the quarry, additional NEPA analysis would include a discussion of direct, indirect, as well as cumulative impacts on naturalness.

Response 18C: Prairie Dog - "BLM's Manual 6840 states that "actions authorized by BLM shall further the conservation of federally listed and other special status species and shall not contribute to the need to list any special status species under provisions of the SEA, or designate additional sensitive species under provisions of this policy." This EA discloses BLM's consideration of effects on sensitive species, and the EA fully analyses the effects on the prairie dog and the cactus. There is no indication based on the analysis of these species that this action would be inconsistent with BLM's policy.

The project area is not within crucial year long habitat for white-tailed prairie dog, nor an area proposed in the Price Field Office land use plan revision as an ACEC

for special management of prairie dog habitat. However, a qualified biologist conducted the survey for prairie dogs and observed no colonies, recommending minimal mitigation measures. Alternative C includes a stipulation for the white-tailed prairie dog should they move into the area.

Response 19C-Black-Footed Ferret -- Consultation with a qualified biologist yields the observation and opinion that there are not currently prairie dogs nor black-footed ferrets present in the project area and measures are in place should they become present

Response 20C: Ferret Reintroduction – Reintroduction of the black-footed ferret into this area is beyond the scope of this analysis. However, the area would be restored to approximate original conditions allowing for any potential reintroduction efforts to the extent original conditions are favorable after operations are complete.

Response 21C: Pronghorn Antelope – The area incorporated in this EA does not support adequate vegetation, and contains no surface moisture sources, during periods of normal precipitation. There is no indication that the sparse vegetation present in normal years could provide any significant forage under drought conditions when usual foraging areas for pronghorn cannot.

Response 22C: Wild and Scenic Rivers –Appendix A is modified to specify the dismissal of the San Rafael River as an eligible river potentially effected by the project. The commenter does not provide any suggestion as to why this river segment, approximately five miles distant and incised in a large canyon, is relevant to the analysis.

Response 23C: Noise – An analysis of noise has been added to the EA (see § 3.3.5 and § 4.1.5).

Comment 1D: The Diamond K Gypsum EA Fails to Properly Analyze Indirect and Cumulative Impacts.

Response 1D: The proposed action for this EA is the only pending mineral development activity in the general area. The EA clearly states that “. . . future mineral development is possible,” §4.4. Future development of other mining claims held by Diamond K Gypsum, or other mineral operations on BLM-administered lands, would require notification, environmental study, permitting, bonding, and inclusive analysis of all previous activity in the action area, including this proposal if implemented.

Response 2D: Previous impacts from the neighboring quarry were considered to the extent they affect the PA in the cumulative impacts analysis. OHV travel in the area is restricted to designated roads, which were well established during reviews of wilderness characteristics.

Comment 1E: Both Alternatives A and B violates NEPA by prematurely limiting reasonable alternatives in ongoing planning efforts.

Response 1E: The proposed action is in conformance with the current RMP. Interior Departmental Manual 516 (11.4)(G) indicates that during preparation of a RMP revision, BLM may undertake an action within the scope and analysis of the existing NEPA document for the current land use plan as long as the action is adequately evaluated in a NEPA document specific to the individual action.

Additionally, the current San Rafael RMP is the BLM's planning document for this area. Under the San Rafael RMP the area is open to location under the 1872 Mining Law. Any mining claims staked before a new land use plan is accepted have valid and existing rights. By regulation the BLM must review a mining plan of operations submitted at any time.

Comment 1F: BLM failed to accurately identify the area of potential effect.

Response: The action area and area of potential impact for this project action are clearly delineated in §§ 1.2, 2.2.1, 3.1, and Appendix B. The referenced plan of operation, permits, and bonding apply to the proposed action area, and other claims in the area owned by Diamond K are outside the scope of this EA. Refer to §1.6 of the EA.

A qualified archaeologist, Indian tribal council, the Utah State Preservation Office, and cultural resource documentation were consulted and no structures exist within the project area, thereby not requiring further consultation under the NHPA (see §5.1, Table 5-1).

Comment 1G: The EA does not adequately address how cultural resource areas will be adequately protected.

Response 1G: As identified in Appendix A, a class III cultural resource inventory was completed of the proposed quarry area and no cultural or historic properties were found. Therefore, BLM concluded that no such properties would be affected.

6.0 REFERENCES

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7.0 **APPENDICES**

7.1 Appendix A -- Interdisciplinary Team Analysis Record Checklist

7.2 Appendix B -- Map 1 -- Diamond K Gypsum, Inc. -- Chalk Hills Quarry, Emery County, Utah, and Map 2, Proposed Gypsum Quarry and Vicinity

APPENDIX A:

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: Diamond K Gypsum Chalk Hills Quarry

NEPA Log Number: UT-070-06-053

Project Leader: Rebecca Doolittle

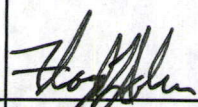

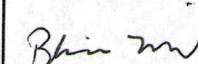



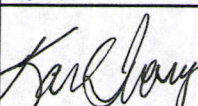
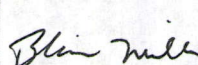
DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

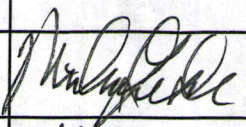
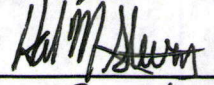
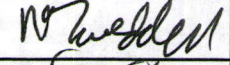


NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in § C of the DNA form.

Determination	Resource	Rationale for Determination	Signature	Date
CRITICAL ELEMENTS				
PI	Air Quality	Potential for increased vehicle exhaust emissions from mining and haulage equipment as well as employee vehicles, and potential for fugitive dust created by the mining process and product haulage away from the site.		10/18/07
NP	Areas of Critical Environmental Concern	The proposed quarry is not located within an ACEC or within an area proposed as an ACEC as part of the current Price RMP revision. Since no direct or indirect affects would occur to the nearest ACEC, the San Rafael Canyon scenic ACEC, the action would not contribute to any cumulative effects on the ACEC.		10/22/07
NP	Cultural Resources	A Class III cultural resource inventory was completed of the proposed quarry area. A determination of "no historic properties affected" was recommended since no such properties were found during the inventory. The project was entered into the project log in October 2006.		10-18-07
NI	Environmental Justice	No minority or low-income populations would be disproportionately affected by the Proposed Action. No human population is present in or near the project area.		10/22/07
NP	Farmlands (Prime or Unique)	Based on soil surveys of Emery County, Natural Resource Conservation Services does not recognize this area as prime or unique farmlands.		10/19/07
NP	Floodplains	Floodplains are not located within the project area.		10/19/07
NP	Invasive, Non-native Species	No Invasive, Non-native species occur with in the proposed quarry area. To minimize introduction of these species, roto-mill and front-end loader should be pressure washed before they are used on-site.		10/19/07
NP	Native American Religious Concerns	Consultation with Native American Tribes was completed for the proposed project. Only one comment was received. The Hopi Tribe expressed an interest in reviewing the cultural resource report. Upon their review they noted that the acreages for the cultural survey and the mining operation did not agree. Changes		10-18-07

Determination	Resource	Rationale for Determination	Signature	Date
		in the proposed quarry were made to so that it was within the surveyed area.		
PI	Threatened, Endangered or Candidate Plant Species	The project area has been identified as potential habitat for the San Rafael cactus, <i>Pediocactus despainii</i> , a listed Federal endangered species.	Karl Dwyer	10/18/07
NP	Threatened, Endangered or Candidate Animal Species	BLM and U.S. Fish and Wildlife records and GIS maps were reviewed for this area. No threatened, endangered and candidate animal species are present within the proposed quarry development area. Therefore would be no effect on these species.	David L. Waller	2007-10-18
NP	Wastes (hazardous or solid)	No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of annually in association with the mining operation. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported or disposed of in association with the mining operation.		10/19/07
NP	Water Quality (drinking/ground)	No surface disturbing activities will impact well or other drinking water sources and is expected to occur well above the water table.		10/19/07
NP	Wetlands/Riparian Zones	No surface disturbing activities are proposed to occur in or near wetlands or riparian zones.	Karl Dwyer	10/18/07
NP	Wild and Scenic Rivers	No eligible, suitable or designated Wild and Scenic River is present in the project area.	Tom J. Smith	10/22/07
NP	Wilderness	No congressionally designated wilderness or areas currently under study by Congress for designation (Wilderness Study Areas or WSAs) are present in or near the project area.	Tom J. Smith	10/22/07
OTHER RESOURCES / CONCERNS				
NI	Rangeland Health Standards and Guidelines	The project would encompass less than 0.1% of the total BLM controlled acres on the Buckhorn allotment. The PA would not affect these resources.	Ray Sensor	10/18/07
NI	Livestock Grazing	Stipulations should be applied notifying the operator that the area is open range for livestock grazing. Should watch for livestock along quarry access routes.	Ray Sensor	10/18/07
NP	Vegetation including Special Status Plant Species other than FWS candidate or listed species	The proposed quarry location and surrounding area does not possess relict vegetation. A survey for special status species was completed for the proposed quarry. No special status species or other FWS candidate or listed species were found within the proposed quarry location.	Karl Dwyer	10/18/07
NP	Fish and Wildlife Including Special Status Species other than FWS candidate or listed species	On April 19, 2007 a survey was completed for white-tailed prairie dog. No animals or burrows were found. No Special Status animal species occur within the proposed gypsum quarry area. The Chalk Hills area is mapped as "Crucial Value Year Long" pronghorn antelope habitat. Sparse to absent forage and the absence of surface water suggest that while antelope may transit the EA area, they do not linger.	David L. Waller	2007-10-18
NI	Recreation	The proposed quarry should not impact the recreation in the area. The quarry is along the access to the Wedge Overlook which is about 4.5 miles south of the proposed quarry.	Tom J. Smith	10/22/07

Determination	Resource	Rationale for Determination	Signature	Date
NP	Paleontology	The proposed gypsum quarry is in the Carmel Formation. No known paleontological resources are known to occur in this formation.		10/19/07
NP	Fuels / Fire Management	Standard conditions of approval need to be developed to address management of slash (brush) piles should they accumulate during development activities.		10/18/07
NP	Wild Horses and Burros	The proposed quarry is not located within a wild horse and burro management area.		10/18/07
PI	Wilderness characteristics	The project area is within the boundaries of an area inventoried as "Non-WSA Lands With or Likely to have Wilderness Characteristics."		10/22/07
PI	Visual Resources	The project is located within VRM Class III which allows for moderate changes in the landscape to occur with partial retention of the landscape character.		10/22/07

FINAL REVIEW:

	Signature	Date	Comments
NEPA / Environmental Coordinator			
Authorized Officer		10/22/07	

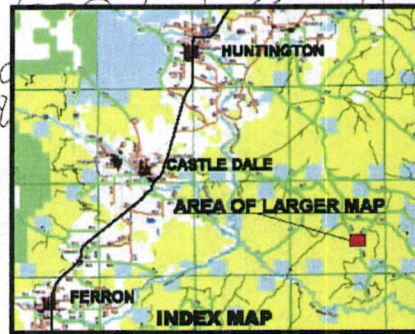
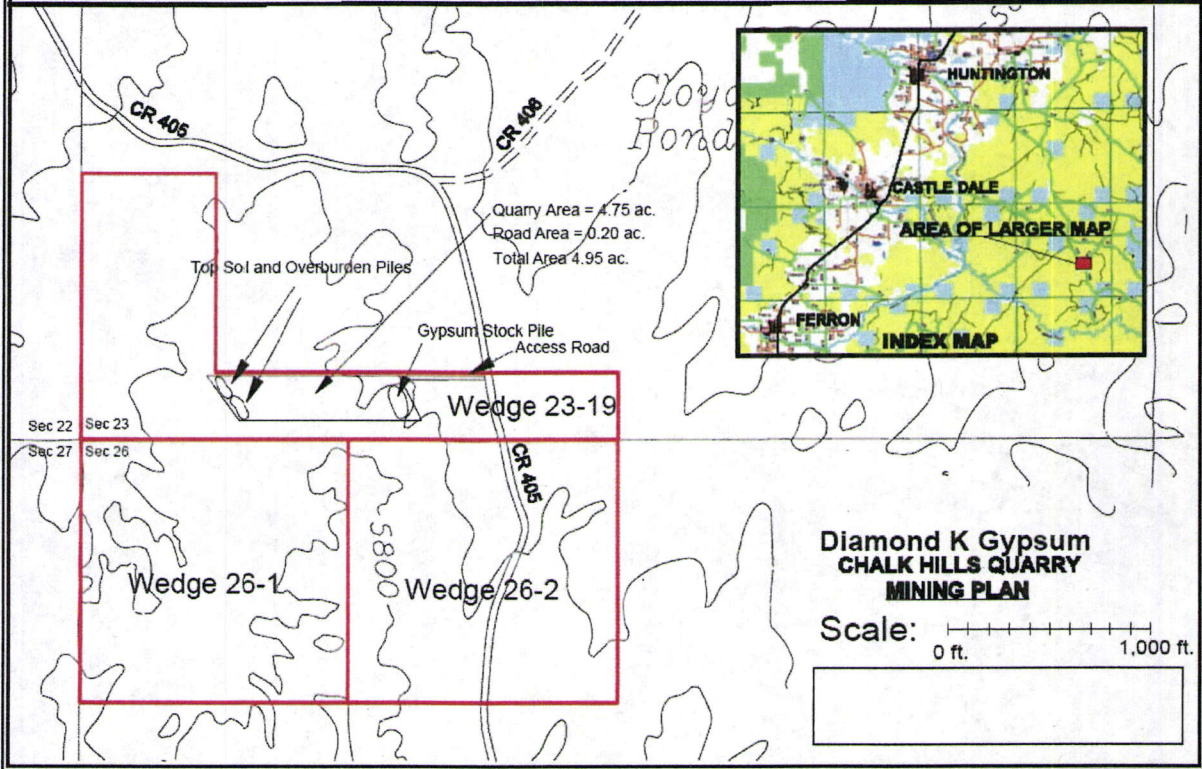
APENDIX B

Map 1 - Project Area Map

Map-2 – Project Area and Vicinity

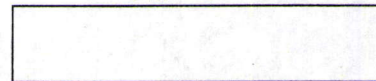
MAP 1

DIAMOND K GYPSUM, INC. – CHALK HILLS QUARRY, EMERY COUNTY, UTAH



**Diamond K Gypsum
CHALK HILLS QUARRY
MINING PLAN**

Scale: 0 ft. 1,000 ft.





Map of Proposed Diamond K Gypsum Quarry Location and Vicinity

LEGEND

▲ = Proposed Gypsum Quarry

map base from Huntington 30' x 60' Quadrangel



1:100,000